

# GUIDE TO YOUR YAMAHA ELECTONE B-20BR



 YAMAHA

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# Introduction

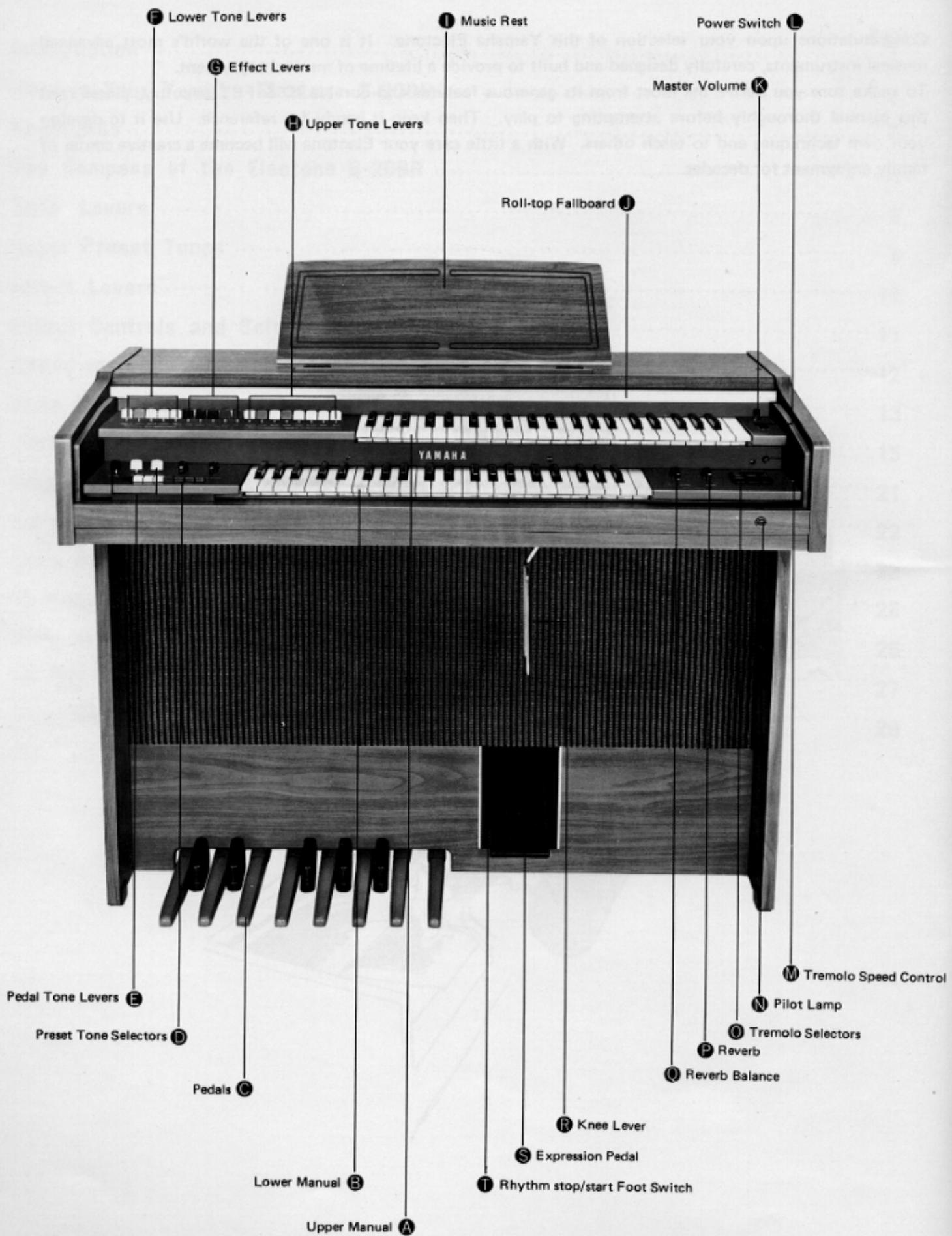
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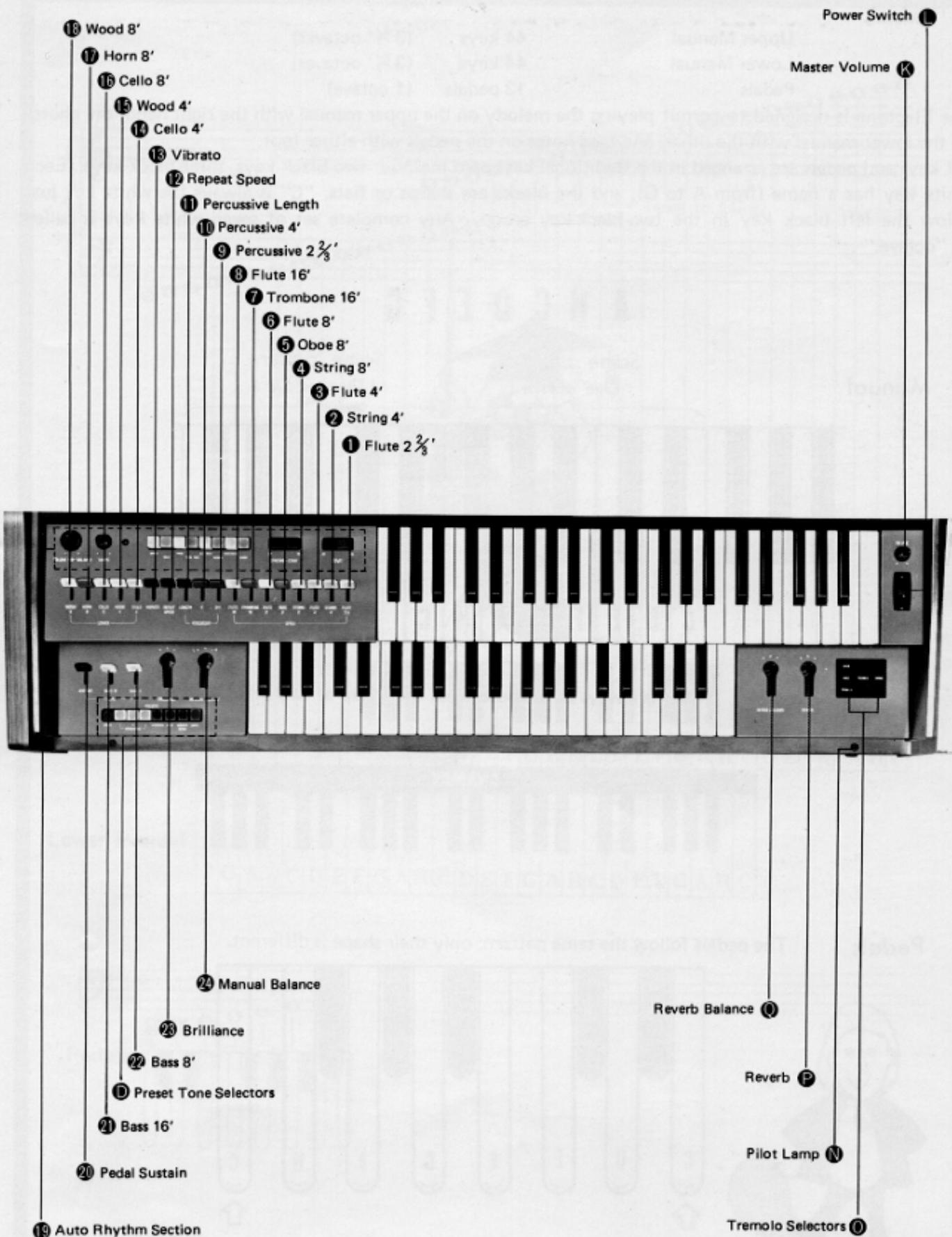
Congratulations upon your selection of this Yamaha Electone. It is one of the world's most advanced musical instruments, carefully designed and built to provide a lifetime of musical enjoyment.

To make sure you derive the most from its generous features and durable IC & FET circuitry, please read this manual thoroughly before attempting to play. Then keep it handy for reference. Use it to develop your own techniques and to teach others. With a little care your Electone will become a creative center of family enjoyment for decades.



# Here is your Yamaha Electone B-20BR





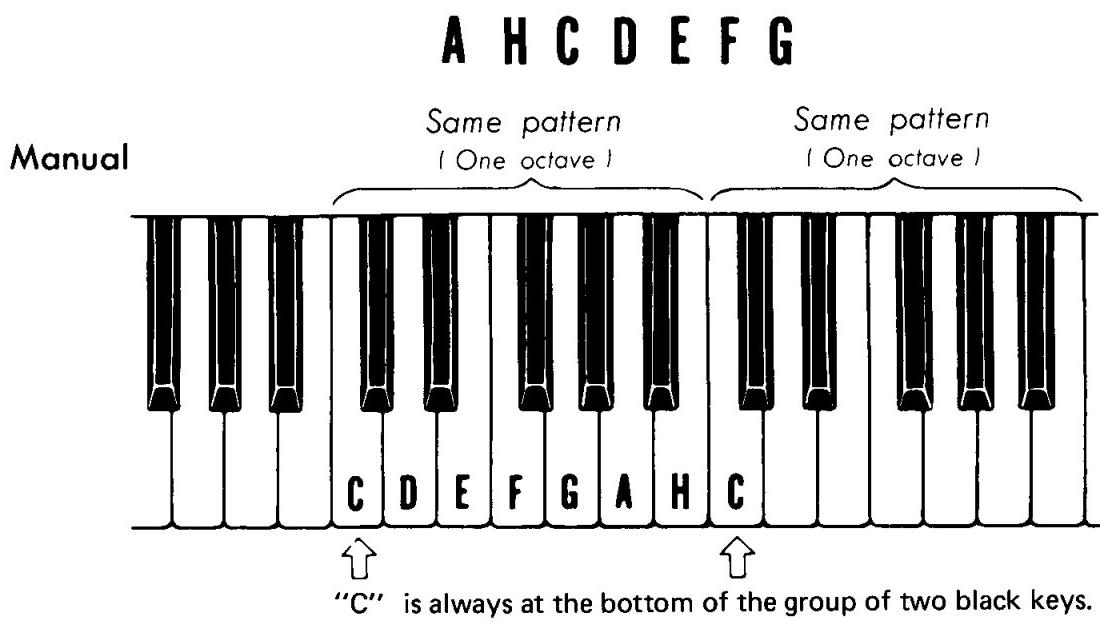
# Keyboards

The B-20BR has three keyboards. The upper two are called "manuals" and the other, for the feet, composed of "pedals."

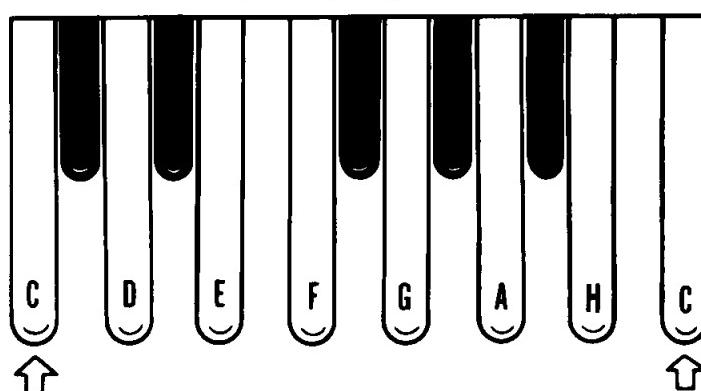
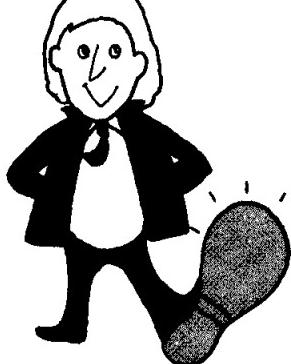
Upper Manual	44 keys	(3 $\frac{2}{3}$ octaves)
Lower Manual	44 keys	(3 $\frac{2}{3}$ octaves)
Pedals	13 pedals	(1 octave)

The Electone is designed to permit playing the melody on the upper manual with the right hand, the chords on the lower manual with the other, and bass notes on the pedals with either foot.

All keys and pedals are arranged in the traditional keyboard method: two black keys, three black keys. Each white key has a name (from A to G), and the blacks are sharps or flats. "C" is always the white key just below the left black key in the two-black-key group. Any complete set of seven white keys is called an "octave."

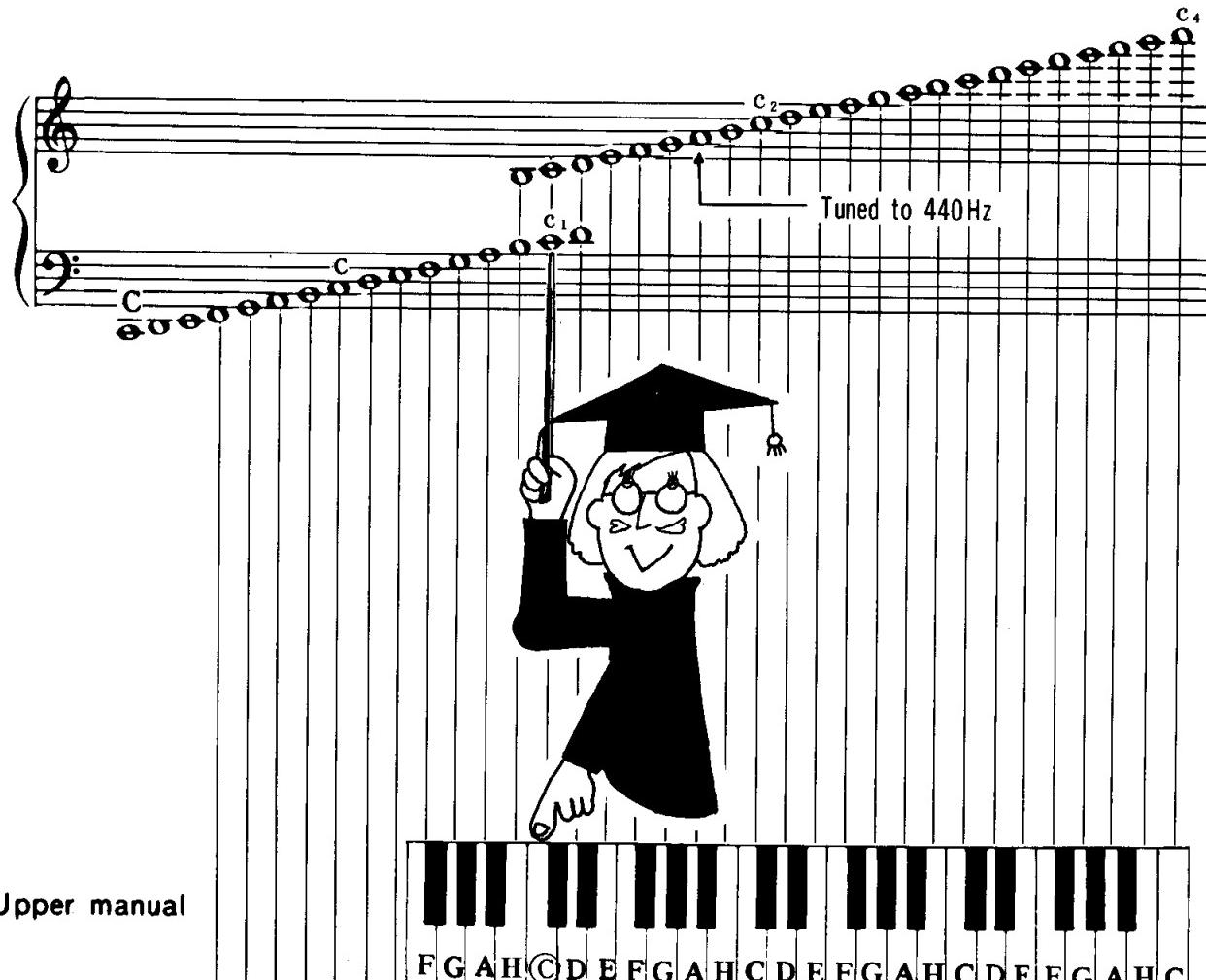


**Pedals**      The pedals follow the same pattern; only their shape is different.



Both end pedals are "C".

# The Compass of the Electone B-20BR



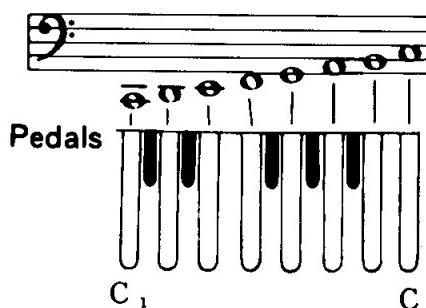
Upper manual

F G A H C D E F G A H C D E F G A H C D E F G A H C

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Lower manual

F G A H C D E F G A H C D E F G A H C D E F G A H C

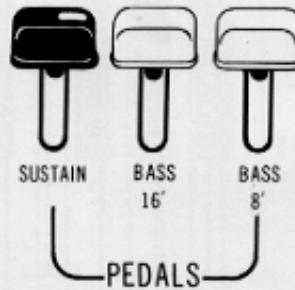
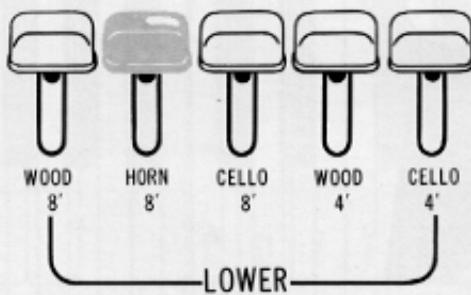
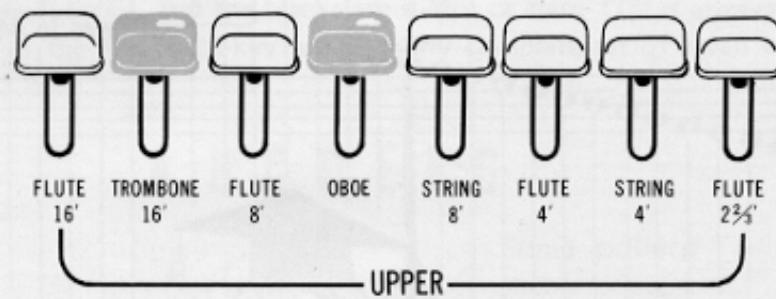


Pedals

# Tone Levers

To the left of both upper and lower manuals are a series of tone levers which control the voices (instrument sounds) which will sound when the keys are depressed. They are divided into groups for upper, lower and pedals, so that different registration can be set for each.

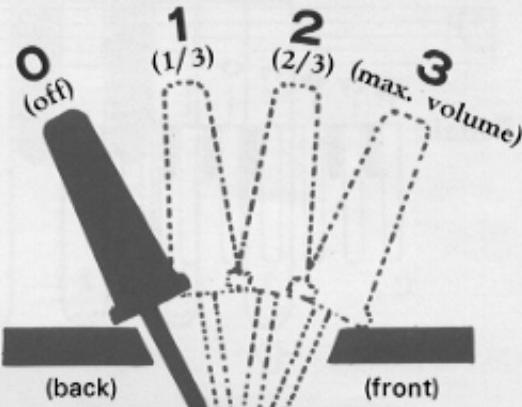
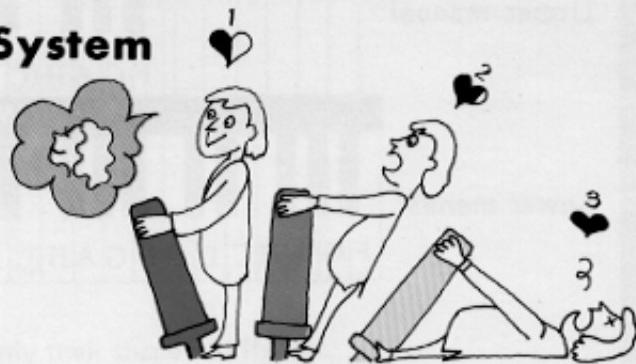
Upper Manual Levers	8 voices
Lower Manual Levers	5 voices
Pedals	2 voices



## Exclusive Yamaha Tone Lever System

Each lever provides two methods of control. One is by continuously moving the lever from off to full, to achieve the exact setting for that tone, and thus balancing the overall tone setting with perfect precision. Each lever also has two easy-to-feel click stops, at 1/3 and 2/3 positions. This lets you refind any setting with mathematical precision and no guesswork in a matter of seconds.

Bear in mind that the total tone lever settings for a particular manual will affect that manual's overall volume. This will be an expressive aid if used properly, a drawback if it is forgotten.



## Tone Lever Registration

For the best result of your performance, you should always take into consideration the correlative tone volume balance among the three keyboards i.e., upper manual, lower manual and pedals.

When you wish to emphasize the melody played on the upper manual, for example, the volume of the lower manual and pedals should be kept under that of the upper manual. On the contrary, if you want to stress the accompaniment part on the lower manual or pedals the volume of that particular keyboard should be adjusted relatively larger than the others.

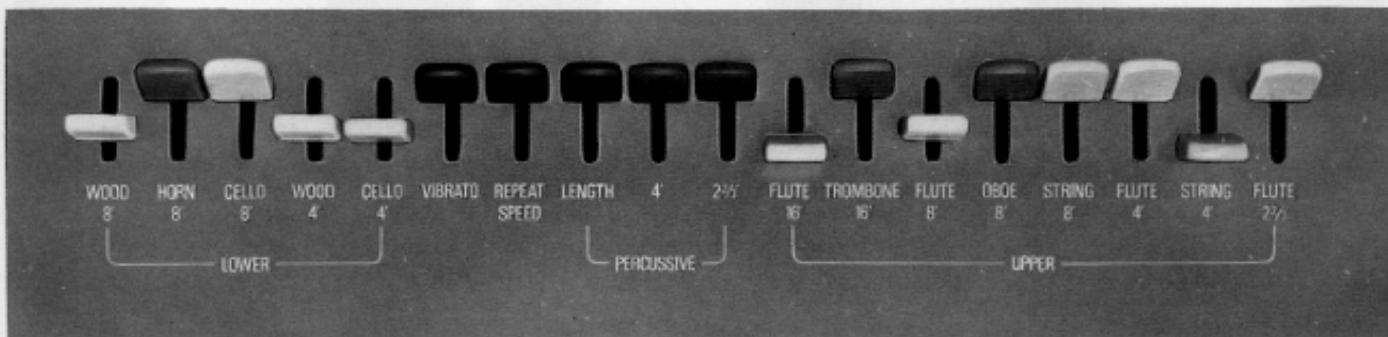
Yamaha's unique variable volume control tone levers enable you to control this correlative tone volume among three keyboards. Judge by your own ears and adjust the position of tone levers in advance. Each tone lever slides continuously from off to full volume for sensitive balance control.

Three distinct stops also convenient to click your favorite tonal combinations into place for quick, easy settings.

### (EXAMPLE)

#### ● LOWER

#### ● UPPER



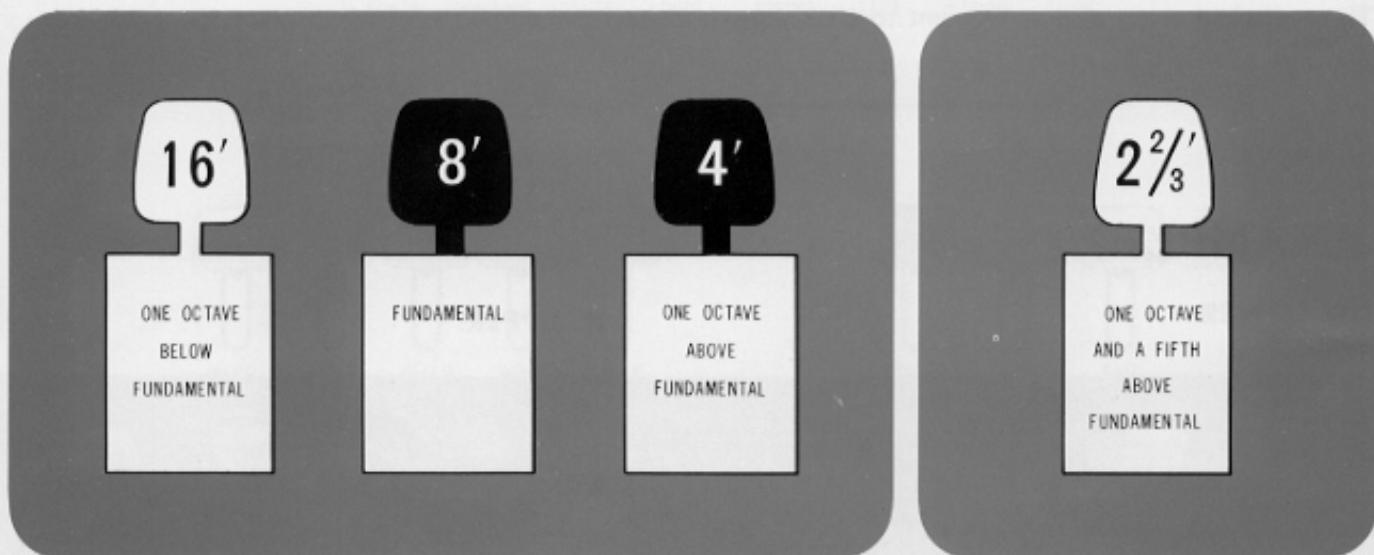
#### ● PEDAL

#### ● CONTROLS & SELECTORS

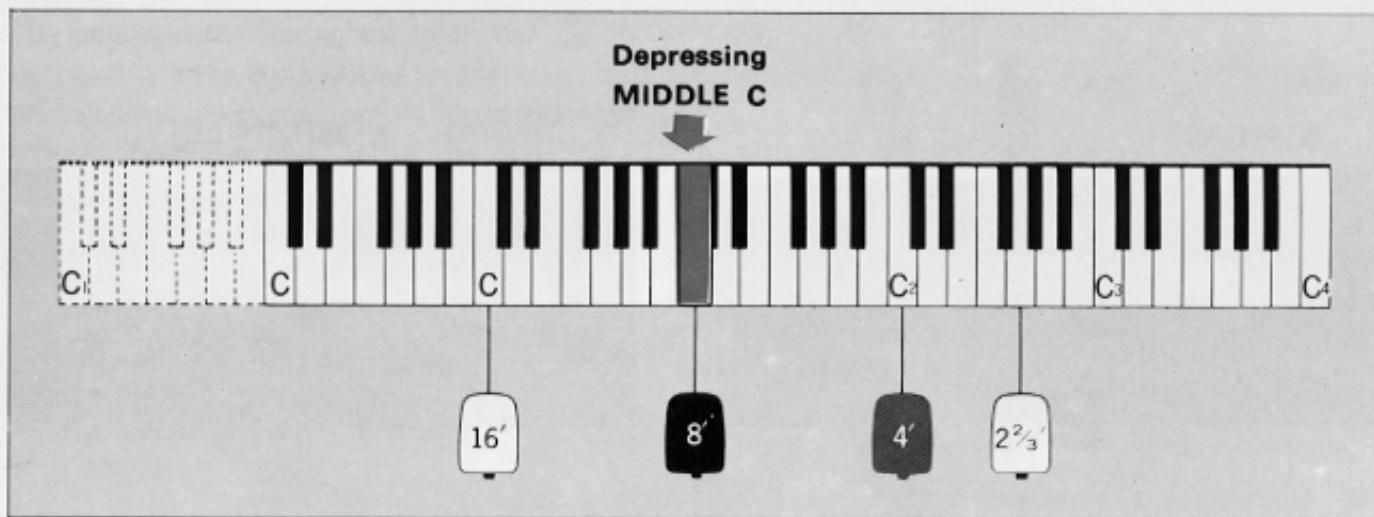


## Harmonics

The B-20BR has four different tonal harmonics, indicated by the numbers 16', 8', 4' and 2 $\frac{2}{3}$ '. These are standard musical abbreviations showing the tone's pitch in relation to the fundamental (written note). An 8' tone will sound just as it has been written. A 16' tone (meaning that the wave length of the vibrations are twice as long as 8', or half as fast) will provide a tone exactly one octave lower than the written note. Similarly, 4' tones are one octave higher than the written note, 2 $\frac{2}{3}$ ' tones are one octave and a fifth higher than the 8' fundamental.



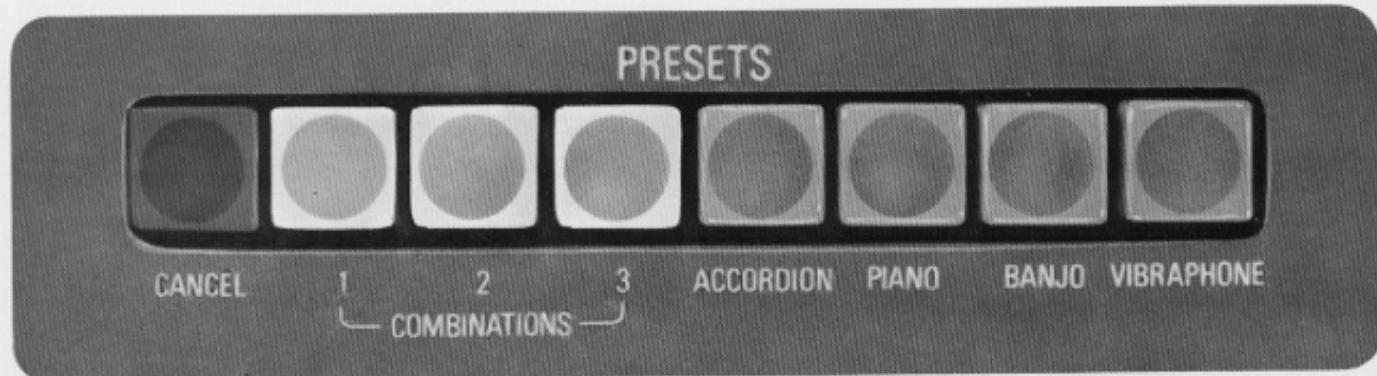
For example, if you press middle C, corresponding to the keys in the chart below will sound.



In other words, the 16' lever extends the lower manual a full octave as shown by the dotted line in the illustration.

# Upper Preset Tones

To the left of the lower manual are eight Upper Preset Tone controls (seven tones plus Cancel). These on/off switches are special tonal blends that most closely resemble the instruments they name (Accordion, Piano, Banjo, Vibraphone) as well as three special preset combinations.



These selectors have two characteristics which must be remembered. Since they are factory preset, they automatically cancel all other upper manual tone lever settings. This lets you switch back and forth.

In addition, precedence is to the right. This means that if two or more buttons are pressed, the one to the right will take effect. To switch from one button to another it is not necessary to first press the cancel button.



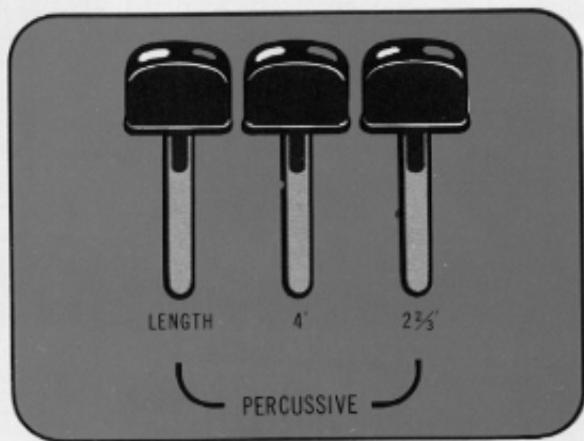
# Effect Levers

These levers control a variety of effects which add a host of tonal variations to the Electone's voices. Each lever works in the same way as the tone levers, with both infinitely-variable continuous control and click-stop settings.

## ● Upper Percussive : ⑨ ⑩ ⑪

Changing the beginning of some or all notes can do wonders for lively selections. Your Electone's percussive effects provide subtle but important shading at the moment each note is heard. The special popping 4' and 2 $\frac{2}{3}$ ' percussive drive can be smoothly blended into all upper manual tones with two variable levers (⑨ and ⑩), and a separate lever ⑪ regulates the length of decay for these effects.

With percussive, use a detached fingering. Each note should be played cleanly; slurred notes will diminish the percussive impact.



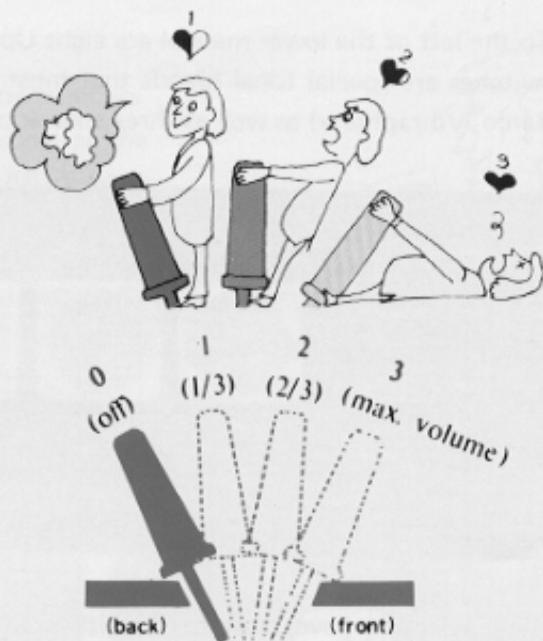
## ● Vibrato : ⑬

Vibrato is an emotional wavering applied to a tone most noticeable in the trembling left hand of violinists and cellists. It can add a great deal to the emotional depth of a passage, especially string voices. The Vibrato lever provides continuous adjustment of this effect's depth.

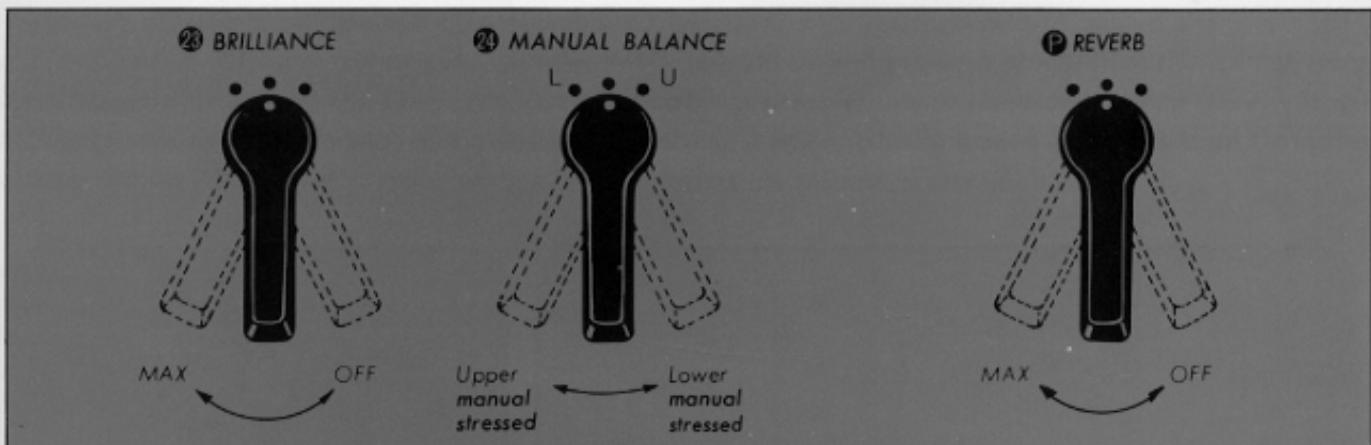
## ● Repeat Speed : ⑭

Cuts and repeats each note just like the double-strumming effect of a mandolin. The lever provides continuous speed adjustment to create a full variety of different moods.

Affects upper manual notes only.



# Effect Controls and Selectors



## ● Brilliance : ⑩

With this single, continuously-variable control you can pinpoint the degree of overall softness or clarity desired for any mood of music. The Brilliance effect will be heightened when combined with string voices. With Flute voices, on the other hand, it will not have any effect.

## ● Reverb: ⑪

Reverberation is the quality that makes your playing sound full and rich, as if you were on the stage of a large hall or auditorium. This control is continuous, so that the reverberatory effect can be set to any degree of strength, as the music requires.

## ● Reverb Balance : ⑫

To balance the Reverb effect between the upper and lower manuals; when used to strengthen the upper manual, it brings you an effect similar to SUSTAIN on more expensive models.

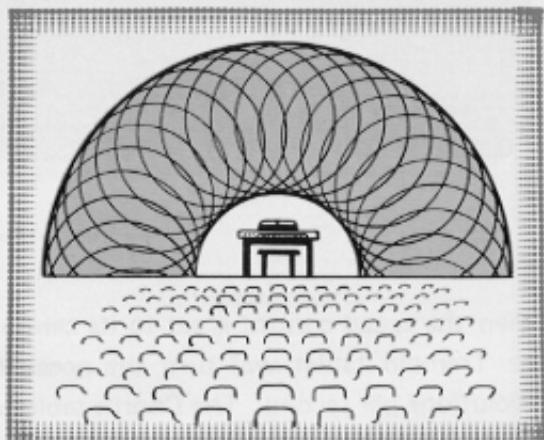
## ● Manual Balance : ⑬

This control governs the relative strength of the upper and lower manuals. It is normally left in the center position, but can be shifted to stress the melody or accompaniment in a selection or passage.

This control can also be used to compensate for a higher number of total tone lever settings (which would ordinarily result in higher volume) on one of the two manuals.

## ● Pedal Sustain : ⑭

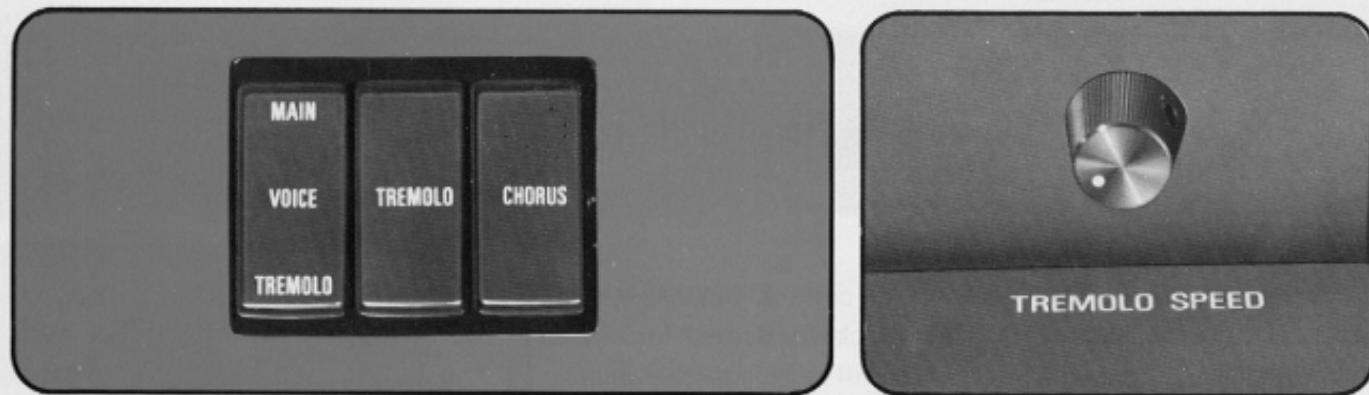
This lever works with the 8' and 16' bass voices to provide bass pizzicato effects. Release the pedal—the sound lingers on for precisely as long as you want, thanks to the continuous adjustment.



# Sound-in-Motion Tremolo

The Electone's special throbbing tremolo is produced by a smaller-size Natural Sound speaker that really spins just behind the tremolo speaker grille on the side of the cabinet.

On the B-20BR there are three tremolo selectors, located on the right side of the lower manual, each with an on/off function. They are complemented by a continuous tremolo speed control knob just above them.



When the speed control is set to its central position, the Tremolo tablet will turn the speaker at seven revolutions per second. The Chorus tablet will turn it at one revolution per second.

Once either tablet is switched on, it takes several seconds for the tremolo speaker to attain the standard speed. This is also true when switching to a slower speed (Tremolo to Chorus). If one of the other tremolo control tablets is switched on during this speed change period, the speed variation will be heard in the music.

If you wish an instant tremolo or chorus sound, be sure to switch on that tablet well in advance of one of the speaker selectors ①. For special selections you can use this speed variation by switching the speaker on first, the Tremolo or Chorus switch later.

## Upper Voice (Main/Rotary) :

Lets you divert upper manual tones from the main to the tremolo speaker.

## Lower Voice (Main/Rotary) :

Does the same for lower manual tones.

